

1 ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

2 Department For Environmental Protection

3 Division for Air Quality

4 (New Administrative Regulation)

5 401 KAR 51:220. CAIR NOx ozone season trading program.

6 RELATES TO: KRS 224.10-100, 224.20-100, 224.20-110, 224.20-120, 40 C.F.R.
7 51.121, 51.122, 72.2, 75.1, 75.2, 75.4, 75.11 to 75.13, 75.17, 75.19, 75.20, 75.24,
8 75.70, 75.72, 75.74, 75.75, Part 96, 42 U.S.C. 7410

9 STATUTORY AUTHORITY: KRS 224.10-100(5), 42 U.S.C. 7410

10 NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(5) requires the
11 Environmental and Public Protection Cabinet to promulgate administrative regulations
12 for the prevention, abatement, and control of air pollution. This administrative regulation
13 establishes requirements for the control of nitrogen oxides (NOx) emissions from large
14 boilers and turbines used in power plants and other industrial applications, pursuant to
15 the federal mandate published under the Clean Air Interstate Rule (CAIR), 40 C.F.R.
16 96.301 to 96.376. This administrative regulation is not more stringent than the
17 provisions allowed under the federal mandate.

18 Section 1. Applicability. This administrative regulation shall apply to:

19 (1) CAIR NOx Ozone Season units in Kentucky that are subject to 40 C.F.R.
20 96.304; or

1 (2) A fossil fuel-fired boiler, combustion turbine, or a combined cycle system
2 having a maximum design heat input of 250 MMBtu per hour or more that was
3 previously allocated NOx allowances pursuant to 401 KAR 51:160.

4 Section 2. CAIR NOx Ozone Season units shall comply with the following
5 requirements:

6 (1) 40 C.F.R. 96.301 to 96.308 (Subpart AAAA), "CAIR NOx Ozone Season
7 Trading Program General Provisions";

8 (2) 40 C.F.R. 96.310 to 96.314 (Subpart BBBB), "CAIR Designated
9 Representative for CAIR NOx Ozone Sources";

10 (3) 40 C.F.R. 96.320 to 96.324 (Subpart CCCC), "Permits";

11 (4) 40 C.F.R. 96.350 to 96.357 (Subpart FFFF), "CAIR NOx Ozone Season
12 Allowance Tracking System";

13 (5) 40 C.F.R. 96.360 to 96.362 (Subpart GGGG), "CAIR NOx Ozone Season
14 Allowance Transfers"; and

15 (6) 40 C.F.R. 96.370 to 96.376 (Subpart HHHH), "Monitoring and Reporting".

16 Section 3. Methodology for the Allocation of CAIR NOx Ozone Season
17 Allowances. The number of CAIR NOx Ozone Season allowances to be allocated to
18 each CAIR NOx Ozone Season unit by the cabinet and to be sold by the
19 Commonwealth of Kentucky shall be determined pursuant to this section.

20 (1) The total number of CAIR NOx Ozone Season allowances shall be the
21 number of CAIR NOx Ozone Season allowances assigned to Kentucky by the U.S. EPA
22 and approved in Kentucky's State Implementation Plan (SIP).

1 (2) The total number of CAIR NOx Ozone Season allowances assigned to
2 Kentucky shall be divided into separate pools as follows:

3 (a) The number of CAIR NOx Ozone Season allowances specified in Kentucky's
4 approved SIP for CAIR NOx Ozone Season units specified in Section 1(1) of this
5 administrative regulation with:

6 1. Ninety-eight (98) percent of this amount allocated for each control period to
7 units that commence commercial operation before:

8 a. January 1, 2006, for the control periods 2009, 2010, 2011, 2012, 2013, and
9 2014;

10 b. January 1, 2009, for the 2015 control period; and

11 c. Thereafter, before January 1 of the year that is six (6) years before the next
12 control period; and

13 2. Two (2) percent of this amount for each control period sold by the
14 Commonwealth of Kentucky with the proceeds deposited into Kentucky's general fund;
15 and

16 (b) The number of CAIR NOx Ozone Season allowances specified in Kentucky's
17 approved SIP for CAIR NOx Ozone Season units specified in Section 1(2) of this
18 administrative regulation.

19 (3) For each CAIR NOx Ozone Season unit, the baseline heat input in mmBtu
20 shall be determined and shall be used to determine CAIR NOx Ozone Season
21 allowances for the pools specified in subsection (2)(a)1 and subsection (2)(b) of this
22 section as follows:

1 (a) For CAIR NOx Ozone Season units commencing operation before January 1,
2 2001, and:

3 1. Operating each calendar year during a period of five (5) or more consecutive
4 years, the baseline heat input shall be the average of the three (3) highest amounts of
5 the unit's adjusted control period heat input for 2001 through 2005;

6 2. Not previously operating each calendar year during a period of five (5) or more
7 consecutive years, the baseline heat input shall be the average of the three (3) highest
8 amounts of the unit's adjusted control period heat input for the five (5) consecutive years
9 of operation;

10 (b) For CAIR NOx Ozone Season units commencing operation on or after
11 January 1, 2001, and operating each calendar year during a period of five (5) or more
12 consecutive years, the baseline heat input shall be the average of the three highest
13 amounts of the unit's adjusted control period heat input over the consecutive five (5)
14 years of operation;

15 (c) For CAIR NOx Ozone Season units that have not operated each calendar
16 year during a period of five (5) or more consecutive years, the average of the three
17 highest amounts of the unit's adjusted control period heat input for the previous five (5)
18 years of operation, where the:

19 1. Unit shall not establish a baseline heat input;

20 2. Adjusted control period heat input for a control period of not operating shall
21 equal zero;

22 3. Cabinet shall allocate CAIR NOx Ozone Season allowances for the unit.

1 (4) The adjusted control period heat input for each ozone season shall be
2 calculated as follows for CAIR NOx Ozone Season units specified in subsection (2)(a)
3 of this section:

4 (a) If the unit is coal-fired during the year, the unit's control period heat input for
5 that year shall be multiplied by 100 percent;

6 (b) If the unit is oil-fired during the year, the unit's control period heat input for
7 that year shall be multiplied by sixty (60) percent; and

8 (c) If the unit is not subject to paragraphs (a) or (b) of this subsection, the unit's
9 control period heat input for that year shall be multiplied by forty (40) percent; and

10 (5) The adjusted control heat input for CAIR NOx Ozone Season units specified
11 in subsection (2)(b) of this section shall equal the unit's control period heat input
12 multiplied by 100 percent.

13 (6) For an ozone season, the unit's control period heat input and the unit's status
14 as coal-fired or oil-fired shall be determined:

15 (a) In accordance with 40 C.F.R. Part 75, if the unit is subject to 40 C.F.R. Part
16 75;

17 (b) By the best available data reported to the cabinet for the unit if the unit is not
18 otherwise subject to 40 C.F.R. Part 75; or

19 (c) By the best available data obtained by the cabinet.

20 (7) For CAIR NOx Ozone Season units included in the pool specified in
21 subsection (2)(a)1 of this section, the cabinet shall allocate CAIR NOx Ozone Season
22 allowances to each CAIR NOx Ozone Season unit in an amount equal to the result
23 obtained by:

1 (a) Multiplying the total amount of CAIR NOx Ozone Season allowances
2 specified in subsection (2)(a)1 of this section by the baseline heat input for each unit
3 and the heat input established under subsection (3)(c) of this section;

4 (b) Dividing by the total amount of baseline heat input and the heat input
5 established under subsection (3)(c) of this section for all applicable CAIR NOx Ozone
6 Season units; and

7 (c) Rounding to the nearest whole CAIR NOx Ozone Season allowance, as
8 appropriate.

9 (8) For CAIR NOx Ozone Season units included in the pool specified in
10 subsection (2)(b) of this section, the cabinet shall allocate CAIR NOx Ozone Season
11 allowances to each CAIR NOx Ozone Season unit in an amount equal to the result
12 obtained by:

13 (a) Multiplying the total number of CAIR NOx Ozone Season allowances
14 specified in subsection (2)(b) of this section by the baseline heat input for each unit and
15 the heat input established under subsection (3)(c) of this section;

16 (b) Dividing by the total amount of baseline heat input and the heat input
17 established under subsection (3)(c) of this section for all applicable units specified in
18 subsection (2)(b) of this section; and

19 (c) Rounding to the nearest whole CAIR Ozone Season NOx allowance, as
20 appropriate.

21 (9) The cabinet shall submit to the U.S. EPA the CAIR NOx Ozone Season
22 allowance to be allocated and sold from the pools specified in subsection (2) of this
23 section in a format prescribed by the U.S. EPA by:

1 (a) October 31, 2006, for the control periods in 2009, 2010, 2011, 2012, 2013,
2 and 2014; and

3 (b) October 31, 2009, for control period 2015; and

4 (c) October 31 of each year thereafter, for the control period in the sixth year
5 after the year of the applicable deadline for submission.

6 Section 5. CAIR NOx Ozone Season Allowance Tracking System.

7 (1) The Commonwealth of Kentucky shall establish an account pursuant to 40
8 C.F.R. 96.351(b) for the purpose of selling the CAIR NOx Ozone Season allowances in
9 the pool specified in Section 3(2)(a)2 of this administrative regulation. The proceeds
10 from the sale of the CAIR NOx Ozone Season allowances shall be deposited in the
11 general fund of the Commonwealth of Kentucky.

12 (2) A CAIR NOx Ozone Season unit shall comply with the CAIR NOx Ozone
13 Season Allowance Tracking System requirements established in 40 C.F.R. 96.351 to
14 96.357.

Date

LaJuana S. Wilcher, Secretary
Environmental and Public Protection Cabinet

PUBLIC HEARING AND PUBLIC COMMENT PERIOD: A public hearing on this administrative regulation shall be held on September 25, 2006, at 10:00 a.m. (local time) in the Conference Room of the Division for Air Quality at 803 Schenkel Lane, Frankfort, Kentucky. Individuals interested in being heard at this hearing shall notify this agency in writing five (5) workdays prior to the hearing, of their intent to attend.

The hearing facility is accessible to persons with disabilities. Requests for reasonable accommodations, including auxiliary aids and services necessary to participate in the hearing, may be made to the contact person at least five (5) workdays prior to the hearing.

This hearing is open to the public. Any person who wishes to be heard will be given an opportunity to comment on the proposed administrative regulation. A transcript of the public hearing will be made. If you request a transcript, you will be required to pay for the transcript.

If you do not wish to be heard at the hearing, you may submit written comments on the proposed administrative regulation. Written comments shall be accepted until October 2, 2006. Send written notification of intent to be heard at the hearing or written comments on the proposed administrative regulation to the contact person.

CONTACT PERSON: Gerry Ennis, Environmental Technologist III, Division for Air Quality, 803 Schenkel Lane, Frankfort, Kentucky 40601, phone number (502) 573-3382, fax number (502) 573-3787, and email: gerry.ennis@ky.gov.

REGULATORY IMPACT ANALYSIS AND TIERING STATEMENT

Administrative Regulation #: 401 KAR 51:220

Contact Person: Gerry Ennis

(1) Provide a brief summary of:

- (a) What this administrative regulation does:** This administrative regulation establishes the requirements for the control of nitrogen oxides (NO_x) emissions from any electric generating unit or industrial boiler that is subject to the provisions of the Clean Air Interstate Rule (CAIR) NO_x Ozone Season Trading Program, 40 C.F.R. 96.301 to 96.376. This administrative regulation will assist in mitigating interstate transport of NO_x emissions.
- (b) The necessity of this administrative regulation:** The U.S. EPA is requiring 28 states and the District of Columbia to revise their State Implementation Plans (SIPs) to include control measures to reduce emissions of nitrogen oxides. NO_x is a precursor to ozone. Reducing the emissions of NO_x will assist 8-hour ozone nonattainment areas in achieving the national ambient air quality standard.
- (c) How this administrative regulation conforms to the content of the authorizing statutes:** KRS 224.10-100(5) requires the cabinet to promulgate administrative regulations for the prevention, abatement, and control of air pollution. This administrative regulation is proposed to reduce NO_x emissions from electric generating units or industrial boilers.
- (d) How this administrative regulation currently assists or will assist in the effective administration of the statutes:** This administrative regulation will reduce NO_x emissions resulting in the protection of human health and the environment.

(2) If this is an amendment to an existing administrative regulation, provide a brief summary of:

- (a) How the amendment will change this existing administrative regulation:** This administrative regulation does not amend any existing administrative regulation.
- (b) The necessity of the amendment to this administrative regulation:** This administrative regulation does not amend any existing administrative regulation.
- (c) How the amendment conforms to the content of the authorizing statutes:** This administrative regulation does not amend any existing administrative regulation.
- (d) How the amendment will assist in the effective administration of statutes:** This administrative regulation does not amend any existing administrative regulation.

(3) List the type and number of individuals, businesses, organizations, or state and local governments affected by this administrative regulation. The owners and operators, along with a designated representative, of electric generating units or industrial boilers will be subject to this administrative regulation.

- (4) **Provide an analysis of how the entities identified in question (3) will be impacted by either the implementation of this administrative regulation, if new, or by the change if it is an amendment:**
- (a) **List the actions that each of the regulated entities identified in question (3) will have to take to comply with this administrative regulation:** Each affected electric generating unit will have to possess allocations sufficient to cover their emissions. In the absence of the required allocations, the affected electric generating unit will have to purchase allocations from the CAIR Box Annual Trading Program for excess emissions of NOx.
 - (b) **In complying with this administrative regulation or amendment, how much will it cost each of the entities identified in question (3):** The cost is an unknown entity.
 - (c) **As a result of compliance, what benefits will accrue to the entities identified in question (3):** The public will benefit from this administrative regulation.
- (5) **Provide an estimate of how much it will cost to implement this administrative regulation:**
- (a) **Initially:** The cabinet will not incur any additional costs for the implementation of this administrative regulation.
 - (b) **On a continuing basis:** There will not be any continuing costs for the implementation of this administrative regulation.
- (6) **What is the source of the funding to be used for the implementation and enforcement of this administrative regulation:** The cabinet's current operating budget will be used for the implementation and enforcement of this administrative regulation.
- (7) **Provide an assessment of whether an increase in fees or funding will be necessary to implement this administrative regulation, if new, or by the change if it is an amendment.** No increase in fees or funding is necessary to implement the proposed administrative regulation.
- (8) **State whether or not this administrative regulation establishes any fees or directly or indirectly increases any fees.** This administrative regulation does not establish, nor does it directly or indirectly increase any fees.
- (9) **TIERING: Is tiering applied?** Yes. This administrative regulation applies to electric generating units producing more than 25 MWe for sale.

FEDERAL MANDATE ANALYSIS COMPARISON

Administrative Regulation #: 401 KAR 51:220

Contact person: Gerry Ennis

- 1. Federal statute or regulation constituting the federal mandate.** The federal mandate is found at 40 C.F.R. 96.301 to 96.376 as published at 70 Fed. Reg. 25162 (May 12, 2005).
- 2. State compliance standards.** The state compliance standards are found in KRS 224.10-100, 224.20-100, 224.20-110, and 224.20-120.
- 3. Minimum or uniform standards contained in the federal mandate.** The federal mandate requires states to revise their State Implementation Plan to reduce the emissions of nitrogen oxides. The federal regulation contains model rules for multi-state cap and trade programs for NOx emissions. The model rules provide states the ability to meet the required emissions reductions in a flexible and cost-effective manner. Each affected electric generating unit or industrial boiler will have to possess allocations for the tons of emissions of NOx for each control period. In the absence of the required allocations, the affected electric generating unit or industrial boiler will have to purchase allocations from the CAIR NOx Ozone Season Trading Program for excess emissions of NOx. Each electric generating unit or industrial boiler will have flexibility in controlling NOx emissions from the source.
- 4. Will this administrative regulation impose stricter requirements, or additional or different responsibilities or requirements, than those required by the federal mandate?** No. The administrative regulation follows the federal regulation model rule and will impose no more stringent requirements than those required by the federal mandate.
- 5. Justification for the imposition of the stricter standard, or additional or different responsibilities or requirements.** Stricter standards and requirements are not imposed.

FISCAL NOTE ON STATE OR LOCAL GOVERNMENT

Regulation No. 401 KAR 51:220

Contact Person: Gerry Ennis

1. Does this administrative regulation relate to any program, service, or requirements of a state or local government (including cities, counties, fire departments, or school districts)? No
2. What units, parts or divisions of state or local government (including cities, counties, fire departments, or school districts) will be impacted by this administrative regulation? No known units, parts or divisions of state or local government will be impacted by this regulation.
3. Identify each state or federal statute or federal regulation that requires or authorizes the action taken by the administrative regulation. KRS 224.10-100(5), 40 C.F.R. 51.121, 51.122, 72.2, 75.1, 75.2, 75.4, 75.11 to 75.13, 75.17, 75.19, 75.20, 75.24, 75.70, 75.72, 75.74, 75.75, Part 96, and 42 U.S.C. 7410
4. Estimate the effect of this administrative regulation on the expenditures and revenues of a state or local government agency (including cities, counties, fire departments, or school districts) for the first full year the administrative regulation is to be in effect.
 - (a) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for the first year? This regulation generates no revenues. The proposed regulation would not affect revenues.
 - (b) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for subsequent years? This regulation generates no revenues. The proposed regulation would not affect revenues.
 - (c) How much will it cost to administer this program for the first year? The Division's operating budget continues as the source of funding for the implementation of this program.
 - (d) How much will it cost to administer this program for subsequent years? The proposed regulation will have no effect on costs for administering the program in subsequent years.

Note: If specific dollar estimates cannot be determined, provide a brief narrative to explain the fiscal impact of the administrative regulation.

Revenues (+/-):

Expenditures (+/-):

Other Explanation: